research the most accessible on costs and widespread technology of dental implantation was conducted with zirconia or sandblasted/acid etched titanium implants despite their price is much higher than just titanium implants. Ukrainian patients pay out-of-pocket for dental implantation and the main task of stakeholders is to provide the most effective services. **CONCLUSIONS:** The most expensive was the implantation with sandblasted and acid etched titanium implants (p <0,001) and zirconia implants (p <0,5). Also we revealed that patients were highly motivated to pay for dental implantation in order to get the best esthetical result.

PSS17

SUGAR FREE GUM IN THE PREVENTION OF CARIES: A COMPARISON OF GERMANY AND FINLAND

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OBJECTIVES: The dental benefit of sugar free gum is scientifically proven. Comparing Germany and Finland, both countries show similar health systems as well as dental health among the population, but the consumption of sugar free gum is much higher in Finland. This paper aims at extrapolating the consumption of sugar free gum in Germany to values of Finland to estimate the potential costs savings for the German health care system due to a decreased risk of caries by consuming more sugar free gum. **METHODS:** Overall dental costs in Germany are identified and the share of expenditures due to caries is estimated. The dental benefit of the consumption of sugar free gum is quantified as a reduction of the relative risk of caries based on data from the literature. Extrapolating the chewing frequencies in Germany to finish values and combining these with the dental benefit of consuming sugar free gum allows estimating the potential cost saving due to better dental health for both the statutory and private health insurance. **RESULTS:** The increase of the consumption of sugar free gum in Germany leads to a reduced risk for caries and better dental health. Potential cost saving amount to 240 M € for the statutory sector and 73 M € for the private sector. **CONCLUSIONS:** The overall state of dental health in Germany and Finland is similar and the countries show many commonalities with regard to the dental health system and overall dental health. By regularly consuming sugar free gum the risk of a caries can be reduced and cost savings up to 313 M € for Germany are possible.

PSS18

COSTS ASSOCIATED WITH THE MANAGEMENT AND MORBIDITY OF DIABETIC MACULAR OEDEMA AND MACULAR OEDEMA SECONDARY TO RETINAL VEIN OCCLUSION

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OBJECTIVES: To analyse the direct and indirect medical costs in patients with diabetic macular oedema (DMO) or macular oedema secondary to retinal vein occlusion (MO-RVO). **METHODS:** This was an observational, cross-sectional, multicenter study in adults diagnosed with DMO or MO-RVO in the last 6-12 months in one or both eyes. Health resource utilization (HRU) data were collected from diagnosis. Employment status of patients and the impact of the disease in their professional life were also assessed. Annual direct healthcare costs and indirect costs caused by morbidity were estimated by diagnostic group (€, January 2014). Differences were assessed using Chi-square (or Fisher exact), Mann-Whitney or Kruskal-Wallis (Dunn contrast) tests. A multivariate regression analysis was used to predict the direct costs. **RESULTS:** The study included 448 subjects (DMO n=255; MO-RVO n=193). No differences in age, gender or time of observation were found. There was stabilization over time in visual acuity and also a reduction in the foveal thickness. There were differences in diagnostic costs: MO-RVO=€1,856 (95%CI:1,741-1,971), bilateral DMO=€1,661 (1,512-1,810) and unilateral DMO=€1,401 (1,307-1,494), p<0.001; and treatment costs (p<0.001). There were also differences in total medical costs: MO-RVO=€4,639 (3,809-5,469), bilateral DMO=€6,275 (4,889-7,660) and unilateral DMO=€6,269 (4,209-8,329), p<0.001. Costs due to permanent disability were greater in bilateral DMO (€11,712, 95% CI 2,395-21,029) than in unilateral DMO (€4,284, –516-9,085) and MO-RVO (€1,052; –553-2,657), p<0.05. In the regression analysis, the variables associated with health costs were: number of hospitalization days and number of visits, time of observation, diagnosis and days off work. **CONCLUSIONS:** Patients with bilateral DMO have higher direct healthcare costs and indirect costs due to morbidity.

PSS19

THE COST-OF-DISEASE (COD) IN DIABETIC MACULAR EDEMA (DME) IN TURKEY: AN EXPERT PANEL APPROACH FOR ESTIMATION OF COSTS

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OBJECTIVES: The objective of the study was to estimate the CoD in DME, in Turkish setting. **METHODS:** A panel by participation of seven ophthalmologists was held to discuss the disease management in DME. Physicians reviewed the literature, discussed the local clinical practices and all cost components; pharmaceuticals, treatment administration, monitoring and adverse event. Cost of ranibizumab treatment was studied and January 2015 local prices for medications and procedures were used as sources. January 2015 EUR currency rate (2.6785TL/EUR) was used. **RESULTS:** The frequency of treatments and outpatient visits were assumed as 7.4 for the first year, 4.0 for the second year, 2.9 for the third year and 1.0 for the following years for ranibizumab. Common adverse events were taken into account. The cost of cataract was accepted as equal to the cost of cataract removal operation which is 153EUR. It was assumed that vitroretinal surgery was applied in 10% of patients with vitreous haemorrhage average cost of which was 10% of 616EUR/operation. It was assumed that surgical treatment (trabeculectomy, Seton operation or cyclophotocoagulation) was applied in 2% of increased ocular pressure (IOP) patients average cost of which was 196EUR/operation. Pharmacologic treatment was assumed to be applied in 98% of the IOP patients cost of which was 4EUR/patient. Thus, overall cost of IOP was calculated as 8EUR. The cost of arterial thromboembolic events (282EUR) was taken from local sources. The total CoD was calculated as 5520EUR in patients treated with ranibizumab where the total cost excluding pharmaceutical was estimated as 590EUR (administration cost 121EUR, monitoring cost 442EUR, adverse event cost 27EUR). **CONCLUSIONS:** In DME, the main part of total CoD was consisted of costs of the treatment, followed by monitoring costs.

PSS20

DIRECT AND INDIRECT COSTS ASSOCIATED TO RETINAL VASCULAR DISEASES IN ITALY. A PROBABILISTIC COST OF ILLNESS STUDY

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OBJECTIVES: The introduction of treatment with inhibitors of Vascular Endothelial Growth Factor (VEGF) has made possible the treatment of the Retinal Vascular Diseases (RVD) for which there was limited therapeutic resources, or even none. The objective of this study was to estimate the average annual cost in Italy incurred by the National Health Service (NHS) as well as society due to RVD in which there is an overexpression of VEGF. **METHODS:** We developed a probabilistic incidence-based cost of illness model to estimate an aggregate measure of the economic burden associated to RVD-induced diseases in terms of direct and indirect costs. A systematic literature review was performed in order to extrapolate epidemiological and direct cost data for total or partial blindness patient in Italy. Indirect costs were calculated as social security costs analyzing a specific database of the National Institute of Social Security (INPS). Data were analyzed considering the total services provided and the mean cost for two types of benefits: disability pension and attendance allowance. Furthermore, one-way and probabilistic sensitivity analysis with 5,000 Monte Carlo simulations was performed in order to test the robustness of results. **RESULTS:** RVD with overexpression of VEGF was estimated to affect 0.84% of the Italian population (501.128). Direct costs analysis is under review while the annual indirect cost per patient for the disability pensions amount to € 3,454 for total blindness patient and € 3,157 for partial blindness. For attendance allowance was estimated an average cost of € 10,350 for total blindness € 2.397 for partial blindness. **CONCLUSIONS:** This is the first study in which direct costs (incurred by NHS) and especially indirect costs (incurred by the Social Security System) were taken into account to estimate the overall burden associated with RVD with overexpression of VEGF in our Country.

PSS21

THE COST-OF-DISEASE (COD) IN CENTRAL RETINAL VEIN OCCLUSION (CRVO) IN TURKEY: AN EXPERT PANEL APPROACH FOR ESTIMATION OF COSTS

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OBJECTIVES: The objective of the study was to estimate the CoD in CRVO, in Turkish setting. **METHODS:** An expert panel was held by participation of five ophthalmologists to discuss the disease management in CRVO. Physicians reviewed the literature, discussed the local clinical practices and all cost components; pharmaceuticals, treatment administration, monitoring and adverse events. Two different treatment options (ranibizumab and dexamethasone) were studied. September-2014 local prices for medications and procedures were used as sources. September-2014 EUR currency rate (2.8671TL/EUR) was used. **RESULTS:** The frequency of treatments in a year were assumed as 8.8 and 2.0 and the numbers of outpatient visits in a year were accepted as 9 and 7 for ranibizumab and dexamethasone, respectively. Common adverse events were taken into account. The cost of cataract was accepted as equal to the cost of cataract removal operation which is 143EUR and the cost of retinal detachment was accepted as the average cost of surgical treatments as 368EUR. It was assumed that surgical treatment (trabeculectomy, Seton operation or cyclophotocoagulation) was applied in 2% of increased ocular pressure (IOP) patients (average cost 183EUR/operation). Pharmacologic treatment was assumed to be applied in 98% of the IOP patients (4EUR/patient). Thus, overall cost of IOP was calculated as 7EUR. The total CoD was calculated as 3,823EUR per patients treated with ranibizumab, where the cost excluding pharmaceutical was determined as 138EUR. The CoD in patients treated with dexamethasone was estimated as 1,195EUR which is lower when compared to CoD in patients treated with ranibizumab. Total cost excluding pharmaceutical was calculated 240EUR for dexamethasone. **CONCLUSIONS:** In CRVO, the cost of treatment formed the major part of the total CoD when compared to monitoring, administration and adverse event costs.

PSS22

THE COST-OF-DISEASE (COD) IN WET AGE-RELATED MACULAR DEGENERATION (WAMD) IN TURKEY: AN EXPERT PANEL APPROACH FOR ESTIMATION OF COSTS

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